

WHAT IS CLAIMED IS:

1. An organic electroluminescence device comprising:  
an organic electroluminescence element and a thin film  
transistor which are formed on a substrate; said organic  
electroluminescence element having at least an organic  
emissive layer disposed between an anode and a cathode; said  
thin film transistor controlling a current flowing to said  
organic electroluminescence element; said thin film transistor  
having an active layer made of a semiconductor material; and  
a refractory metal layer connecting a source region or  
drain region of said thin film transistor to said anode of  
said organic electroluminescence element.

2. The device defined in Claim 1, wherein said refractory  
metal layer is in direct contact with said active layer made  
of said semiconductor material.

3. The device defined in Claim 1, wherein said refractory  
metal layer comprises:

a first refractory metal layer which is in direct contact  
with said active layer made of said semiconductor material;  
and

a second refractory metal layer which is in direct  
contact with said anode of said organic electroluminescence  
element.

4. The device defined in Claim 1, wherein said refractory metal layer comprises:

a first refractory metal layer which is in direct contact with said active layer made of said semiconductor material;

5 a second refractory metal layer which is in direct contact with said anode of said organic electroluminescence element; and

a conductive metal layer disposed between said first refractory metal layer and said second refractory metal layer.

10 5. The device defined in Claim 4, wherein said active layer comprises polycrystalline silicon; and wherein said conductive metal layer comprises aluminum; and wherein said anode of said organic electroluminescence element comprises a transparent conductive material.

20 6. The device defined in Claim 4, wherein said first refractory metal layer contains either at least one of chromium, molybdenum, tungsten, and titanium, or an alloy including at least one of them; and wherein said conductive metal layer comprises aluminum.

25 7. The device defined in Claim 6, wherein said active layer comprises a silicon semiconductor; and wherein said anode of said organic electroluminescence element comprises indium tin oxide or indium zinc oxide.

8. An organic electroluminescence device comprising:  
pixels, each of said pixels including an organic  
electroluminescence element and a thin film transistor, said  
organic electroluminescence element having an emissive layer  
disposed between an anode and a cathode, said thin film  
transistor controlling a current flowing from a power source  
line to said organic electroluminescence element, said thin  
film transistor having an active layer made of a semiconductor  
material; and

a contact between one of a source and drain in said  
active layer and said anode of said organic  
electroluminescence element, and between the other of said  
source and drain in said active layer and said power source  
line is respectively achieved through a refractory metal layer.

9. The display device defined in Claim 8, wherein said  
refractory metal layer is in direct contact with said active  
layer made of said semiconductor material.

10. The display device defined in Claim 8, wherein said  
refractory metal layer disposed between one of the source and  
drain of said active layer and said anode of said organic  
electroluminescence element, comprises:

a first refractory metal layer being in direct contact  
with said active layer of said semiconductor material;

a second refractory metal layer being in direct contact  
with said anode of said organic electroluminescence element;

and

a conductive metal layer disposed between said first refractory metal layer and said second refractory metal layer.

5       11. The display device defined in Claim 10, wherein said active layer comprises polycrystalline silicon; and wherein said conductive metal layer comprises aluminum; and wherein said anode of said organic electroluminescence element comprises a transparent conductive material.

10       12. The display device defined in Claim 8, wherein each pixel has a switching thin film transistor, said switching thin film transistor having a gate connected to a gate line, one of a source and drain in said active layer made of a semiconductor material and connected to a data line, and the other of said source and drain connected to a gate of a thin film transistor to control a flow of current supplied from a power source line to said organic electroluminescence element; said active layer of said switching thin film transistor making contact with said data line via a refractory metal layer.

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13. A light emitting device comprising:

an emissive element having an emissive layer between a first electrode and a second electrode;

25       a thin film transistor for controlling power supplied to said emissive element, said thin film transistor having an active layer made of a semiconductor transistor; and

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a refractory metal layer connecting a first electrode region in said active layer to said first electrode of said emissive element.

5        14. The light emitting device defined in Claim 13, wherein  
said refractory metal layer is in direct contact with said  
active layer made of said semiconductor material.

15. The light emitting device defined in Claim 13, wherein  
said refractory metal layer comprises:

      a first refractory metal layer which is in direct contact  
with said active layer made of said semiconductor material;  
and

      a second refractory metal layer which is in direct  
contact with a first electrode of said emissive element.

16. The light emitting device defined in Claim 13, wherein  
said refractory metal layer comprises:

      a first refractory metal layer which is in direct contact  
with said active layer made of said semiconductor material;

      a second refractory metal layer which is in direct  
contact with said first electrode of said emissive element;  
and

      a conductive metal layer disposed between said first  
refractory metal layer and said second refractory metal layer.

17. The light emitting device defined in Claim 16, wherein

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said active layer comprises polycrystalline silicon; and  
wherein said conductive metal layer comprises aluminum; and  
wherein said anode of said organic electroluminescence element  
comprises a transparent conductive material.

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18. The light emitting device defined in Claim 16, wherein  
said first refractory metal layer contains either at least one  
of chromium, molybdenum, tungsten, and titanium, or an alloy  
including at least one of them; and wherein said conductive  
metal layer comprises aluminum.

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19. The light emitting device defined in Claim 18, wherein  
said active layer comprises a silicon semiconductor; and  
wherein said anode of said organic electroluminescence element  
comprises indium tin oxide or indium zinc oxide.

*add A* *add B*